



OREGON
SCIENTIFIC

Body Fat Monitor

with Wireless Remote Display
(GR101)

User Manual



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Introduction

Thank you for selecting the Oregon Scientific™ Body Fat Monitor as your healthcare product of choice. Your GR101 Body Fat Monitor is designed to give you many years of reliable service. Some of its features include:

- Automatic calculation of weight, body mass index (BMI), body fat percentage, and body water percentage/weight
- Wireless Remote Monitor with 8-meter range and a large LCD display
- Patented step-on technology that automatically turns on the scale whenever you step onto it (guest mode)
- Storage of up to 4 different height and age information for four different users (guest mode available)
- Storage of up to 30 previously recorded weight, BMI, body fat percentage, and body water percentage/weight

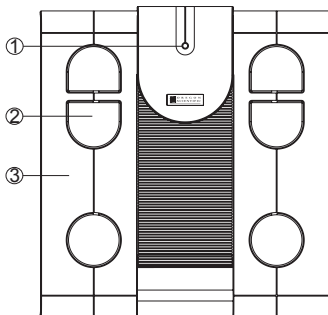
This manual contains important safety and care information, and provides step-by-step instructions for using this product. Read the manual thoroughly, and keep it in a safe place in case you need to later refer to it.



Key Features

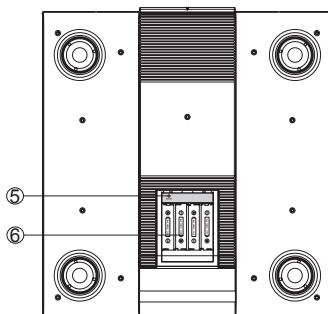
SCALE UNIT

Front View



1. LED Indicator
2. Metal Footpads
3. Scale Platform
4. Carrying Handle

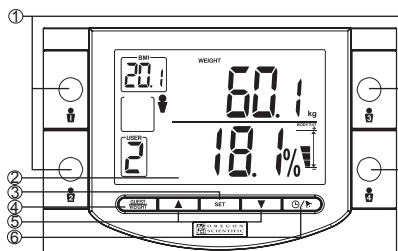
Back View



5. Reset Hole
6. Battery Compartment

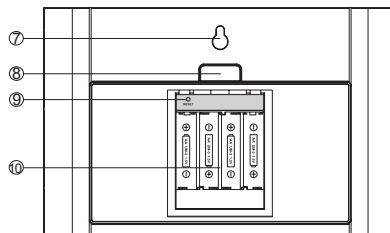
REMOTE MONITOR

Front View



1. User Switches
2. LCD Display
3. Set Button
4. Guest / Weight Button
5. ▲ / ▼ Buttons
6. Clock / Alarm Button

Back View



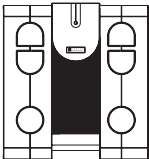





7. Wall Mount
8. Battery Compartment Button
9. Reset Hole
10. Battery Compartment



Getting Started

UNPACKING THE PRODUCT

When you unpack your product, make sure to keep all the packing materials in a safe place, in case you need to later transport or return it for servicing. In the box, you will find:

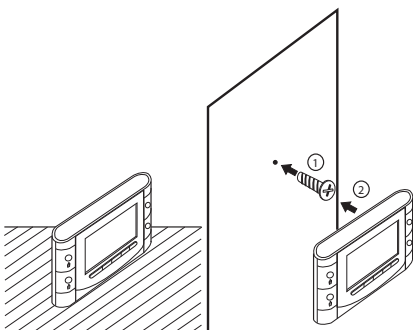
Scale Unit	Remote Unit
	
8x AA Batteries	4x Carpet Feet
	
User Manual	Warranty Card
	

PLACING THE UNITS

The Scale and the Remote Monitor should be within 8 metres of each other, in order to ensure proper reception.

Remote Monitor Installation

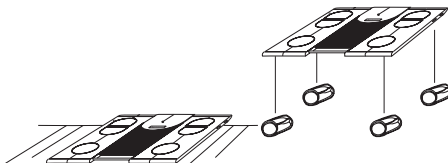
Mount or place the Remote Monitor on a wall or a flat surface as shown below. For best results, it should be located within 8 meters of the Scale. Avoid obstructions such as walls or heavy furniture.



Scale Placement

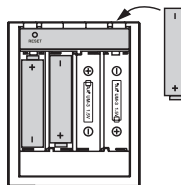
For best results, place the Scale on a flat, even surface. Use the supplied carpet feet if the Scale is to be placed on carpet.

NOTE Leave the Scale on the floor for 5 seconds to allow for self-calibration.



QUICK START

1. Install the supplied batteries into both the Scale and Remote Monitor.




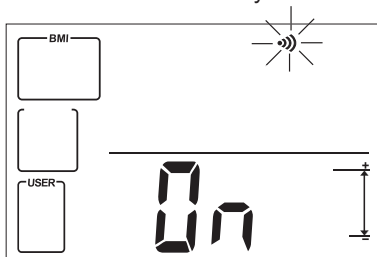
2. On the Remote Monitor, press and hold **SET** to select, in order:
 - a. Weight unit:
lb (pound), kg (kilogram), or st-lb (stone)
 - b. 12- or 24-hour format
 - c. Current hour
 - d. Current minute
 - e. Current year
 - f. Date/Month or Month/Date format
 - g. Current Month
 - h. Current Date

NOTE Press ▲ / ▼ to adjust the values of each setting. Press **SET** to confirm.

GUEST MODE

The Guest Mode is for users without a User Profile set up. You can measure your weight and BMI in this mode.





1. Press **Guest/Weight**. Once the Reception icon  blinks and the Scale's LED Indicator is blank, the Remote Monitor is ready to receive



2. Follow Steps 3 and 4 of the **USER PROFILE MEASUREMENTS** section.

NOTE You can choose to skip the next set of instructions if you do not want to measure your Body Fat and Body Water levels.

3. Once the green LED stops blinking, the Remote Monitor will prompt you for:

- a. Gender:  Male /  Female
- b. Birth Month 
- c. Birth Year  icon appears
- d. Height:
 - In centimetre (cm) if kg (kilogram) weight unit was selected.
 - In feet and inches if lb (pound) or st-lb (stone) weight unit was selected.

NOTE Press ▲ / ▼ to adjust the values of each setting. Press **SET** to confirm.

4. When completed, your Body Fat and Body Water measurements will be alternately displayed on the Remote Monitor.



User Profile

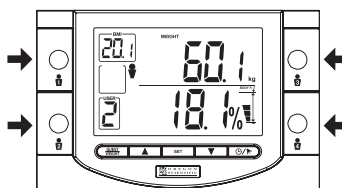
SETTING USER PROFILE

With this product, you can set and store the age, gender, and height for up to four people (User 1 to 4) who regularly use the Body Fat Monitor.

NOTE If the batteries are low, you cannot store the height and age to memory.

1. On the Remote Monitor, each user is represented by one of the four User Switches. Press 1, 2, 3, or 4 to select a user.

NOTE Make sure not to store your height and birth date over someone else's existing profile.



2. Once the green LED stops blinking, the Remote Monitor will prompt you for:


- a. Gender:  Male /  Female
- b. Birth Month 
- c. Birth Year  icon appears

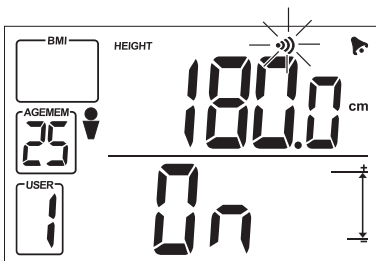
- d. Height:
 - In centimetre (cm) if kg (kilogram) weight unit was selected.
 - In feet and inches if lb (pound) or st-lb (stone) weight unit was selected.

NOTE Press ▲ / ▼ to adjust the values of each setting. Press **SET** to confirm.

USER PROFILE MEASUREMENTS

Once you set a User Profile, the GR101 can automatically calculate the body mass index (BMI), Body Fat Percentage, and Body Water measurements.

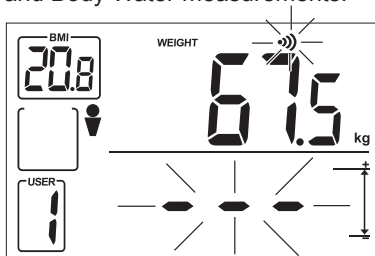
1. Press the User Switch (1 to 4) that has your User Profile configured.
2. Your profile will appear on-screen. Once the Reception icon  blinks and the Scale's LED Indicator is blank, the Remote Monitor is ready to receive your weight information.



3. Step onto the Scale. Stand still while the measurement is being taken. The Scale's green LCD Indicator will blink.

NOTE It is recommended that you step onto the scale with your bare feet. The electric signal sent from the scale cannot give readings if socks or shoes are worn.

4. Your weight and BMI will first appear on the Remote Monitor. Remain still, and the green LED Indicator will blink more rapidly to record your Body Fat and Body Water measurements.

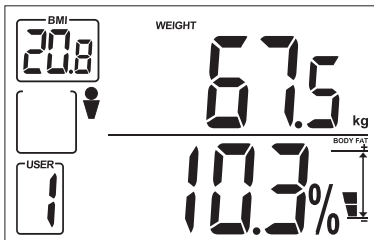


NOTE If "OL" is shown on the Remote Monitor, the maximum loading capacity for the Scale has been exceeded. Step off the Scale and try again with less than 150kg of weight.

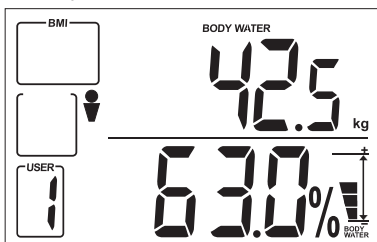
NOTE If you wait for too long before stepping on the Scale, your measurements will not be taken correctly. Step off the Scale and follow these instructions again.

5. Once the green LED stops blinking, your Body Fat and Body Water measurements will be alternately displayed on the Remote Monitor.

Weight, Body Fat and BMI Display:



Body Water Weight and Percentage Display:



MEMORY MODE

The GR101 can store up to 30 previous measurements. To display previous measurements taken by a user with a profile:

1. Press the User Switch (1 to 4) corresponding to your User Profile.
2. Press ▲ / ▼ to cycle through your previous measurements. The MEM box will indicate the current memorized measurements that you are viewing.



Other Settings

ALARM

The Remote Monitor also has alarm function with snooze.

Set Alarm

1. Press ⌚/🔊 to enter Alarm Mode.
2. To adjust the alarm time:
 - a. Press and hold **SET**.
 - b. Press ▲ / ▼ to adjust the hour and minute. Press **SET** to confirm.
3. To turn alarm on/off, press ▲ / ▼.

When turned on, the 🔊 icon will appear.

4. Press ⌚/🔊 anytime to return to normal clock display.

Snooze

When the alarm rings:

- Press ⌚/🔊 to turn alarm / snooze off.
- Press any other buttons to temporarily disable the alarm for 8 minutes (**SNOOZE** 🔊 icon will appear).

LOW BATTERY WARNING

Scale

The LED Indicator also functions as a battery level indicator. When you step on the scale, the following LED colour indicates:

- Green - Adequate battery level
- Yellow - Low battery level
- Red - Battery is depleted

Remote Monitor

The LCD Display can show Low Battery Warning symbols for both the Scale and the Remote Monitor:



The Remote Monitor's batteries are low.

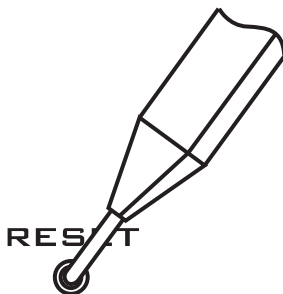


The Scale's batteries are low.

RESET

The **RESET** hole is used whenever the product is not performing as expected (such as when the Remote Monitor cannot detect the Scale) or when new batteries are inserted. This will return the settings to default values.

Both the Scale and Remote Monitor have **RESET** holes located inside the Battery Compartment. Use a blunt stylus such as a paper clip to press into the hole.



NOTE The stored time information will be erased when the **RESET** hole is pressed on the Remote Monitor. All other values, such as date and month, will not be affected.



How the Body Fat Monitor Works

When you step on the scale, a weight measurement is taken. The GR101 can also help you to automatically calculate your Body mass index (BMI) and Body Fat Percentage, two internationally accepted indicators of health and obesity levels.

Weight alone is not a good enough indicator of health because it does not differentiate between muscles, tissues, bones, and fat. As such, when a person loses weight, it may be a result of the loss of muscles or body water but not fat. In order to better understand your body composition and current health level, both the BMI and Body Fat Percentage should be observed.

Neither the BMI nor the Body Fat Percentage, taken individually, gives the complete picture of your health. For example, bodybuilders often have high BMI (considered obese) but low Body Fat Percentage (considered healthy). The BMI, in this case, does not take into account that the extra weight is from muscles and water but not fat. Conversely, a very thin person may have low Body Fat Percentage (considered healthy) but also lower-than-accepted BMI (considered unhealthy). This means that the person is still at risk health-wise, despite the low Body Fat Percentage.

NOTE Consult your physician before you begin a new diet or exercise program.

BODY MASS INDEX

What is Body Mass Index (BMI)?

Body mass index (BMI) is a widely used international standard that measures height to weight ratio to determine obesity. BMI is expressed by the following terms:

$$\text{BMI} = \frac{\text{Body weight (kg)}}{[\text{Body height (m)}]^2}$$





The BMI is only a general indicator of your health level. As such, accuracies may vary depending on your body type and composition. Consult your physician to find out more about your current health.

NOTE Refer to **WEIGHT CONVERSION TABLE** to convert between weight units.

How to Interpret BMI

Use the resulting BMI value with the chart below to determine your current level of health:

NOTE Asians have a separate BMI range due to their different body composition.

Health Indication	BMI Range	Description
Under-weight 	Less than 20.0	Your body weight is currently lower than average. Work toward healthy, regular food intake and exercise routine to build up your health to recommended levels.
	*Asian BMI: Less than 18.5	
Recommended 	20.0 – 25.0	Your health is at the recommended level. Maintain a balanced diet and exercise to keep your current level of health.
	*Asian BMI: 18.5 – 23.0	
Over-weight 	25.1 – 29.9	Your body weight may be above normal. Increase your exercise and work out a diet plan to lower your risk for serious illness.
	*Asian BMI: 23.0 – 29.9	
Obese 	30.0 or greater	At this level, you may be at risk for heart disease, high blood pressure, and other illnesses. Consult with your doctor to develop a proper health and fitness plan.
	*Asian BMI: 30.0 or greater	

NOTE BMI should not be used as a guideline for health risks for the following groups:

Group	Reason
Children and teenagers	BMI ranges are only based on adult heights.
Athletes and body-builders	BMI does not differentiate between fat and muscle, thus making it inaccurate for persons with high muscle volumes.
Pregnant or nursing women	This group generates naturally high fat reserves as part of the pregnancy.

References:

1. Jequier, E. (1987) Energy, obesity, and body weight standards.
2. American Journal of Clinical Nutrition, 45, 1035-1047
3. Japan Society for the Study of Obesity
4. The Weight Loss Research Center
5. myDr. (www.mydr.com.au)

BODY FAT PERCENTAGE

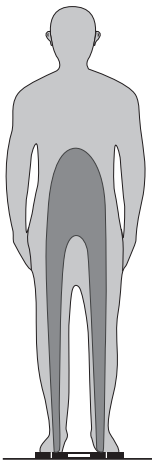
What is Body Fat Percentage?

Body Fat Percentage is a measurement of the total percentage of fat in your body. For example, if you weigh 70 kg and your Body Fat Percentage is 15%, then you are retaining 10.5 kg of fat. The remaining weight is composed of muscles, bones, tissues, and water weight.

Among overweight people, it is excess fat and not weight alone that carries health risks. Since the body comprises elements of varying densities, weight or BMI cannot fully measure exactly how much excess fat a person carries. For example, two people of the same weight and BMI may have big differences in body composition. One may carry excess fat while the other carry acceptable level of fat needed to regulate the body. As such, a Body Fat Percentage measurement is an effective assessment of your current health level.

NOTE Essential fat is necessary for bodily functions, since it helps to maintain body temperature an insulate organs and tissues.

How Body Fat is Measured



**BIA
Foot-to-Foot
Measuring
Diagram**

The GR101 uses the method of Bioelectrical Impedance Analysis (BIA) to measure body fat. This method is completely safe, and is widely used in the medical field. The principle of BIA is as follows: GR101 sends a low, harmless electrical signal through your body that flows freely through fluids but not fat. As such, the machine measures the opposition to the signal and uses this to calculate the body fat percentage (along with the person's age, height, and weight).

How to Interpret Body Fat Percentage

Use the resulting Body Fat Percentage value with the chart below to determine your current level of health:

ADULT MEN

Body Fat Level	Age Group in Years			
	< 30	30-39	40-49	> 49
Very High	> 28%	> 29%	> 30%	> 31%
High	22 - 28%	23 - 29%	24 - 30%	25 - 31%
Normal	11 - 21%	12 - 22%	13 - 23%	14 - 24%
Low	6 - 10%	7 - 11%	8 - 12%	9 - 13%
Very Low	<6%	<7%	<8%	<9%

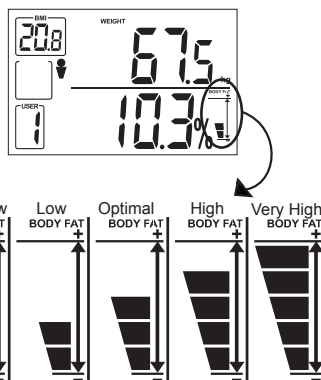
ADULT WOMEN

Body Fat Level	Age Group in Years			
	< 30	30-39	40-49	> 49
Very High	> 32%	> 33%	> 34%	> 35%
High	26 - 32%	27 - 33%	28 - 34%	29 - 35%
Normal	15 - 25%	16 - 26%	17 - 27%	18 - 28%
Low	12 - 14%	13 - 15%	14 - 16%	15 - 17%
Very Low	< 12%	< 13%	< 14%	< 15%

Body Fat Standard	Reason
Very High	Percent fat at this level indicates the person is seriously obese to a degree that this can have adverse health consequences. Maintaining this level of fat for a long period of time places the person at risk of hypertension, heart disease, and diabetes. Consult your doctor on a long-term weight loss and exercise program.
High	It is likely that the person is obese. Careful implementation and monitoring of diet and exercise is recommended.
Optimal	This is the ideal level of body fat for the average person.
Low	For athletes, this is a desirable level of body fat. For regular persons, a regular diet should be considered to improve the balance of body composition.
Very Low	The level of body fat is too low. Consult a physician for advice.

How to Interpret Body Fat Level Indication

In addition to displaying your Body Fat Percentage, the GR101 provides a Body Fat Level Indication on the LCD screen to help you immediately gauge your level of body fat without referring to the chart above.



Reference:

1. **Robert M. Ross, Andrew S. Jackson: Exercise concepts, calculations, and computer applications.**
Carmel, Ind.: Benchmark Press, 1990.

How Body Fat Percentage Fluctuates

It is recommended that you choose a time slot to measure body fat and then monitor it regularly at the same condition. Ideally, body hydration level is most stable during late afternoon, right before dinner. Please note the many factors may alter an individual's body fat reading, including alcohol consumption, taking a bath or exercising, waking up, eating, fever and illnesses.

BODY WATER

What is Body Water?

Total Body Water is the amount of water retained in the body, and comprises between 50%-70% of the total body weight. Generally, men tend to have higher water weight than woman due to a greater amount of muscle. Athletes also tend to have 5-8% more Total Body Water

due to more muscle mass. Staying within the proper Body Water range is very important in order to stay healthy. It plays an important role in the regulation of body temperature, removal of waste from the body, cell metabolism, and keeping skin and tissues moist.

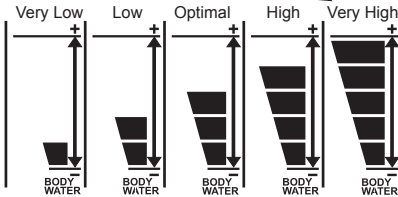
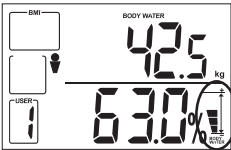
How to Interpret Body Water Levels


Use the resulting Body Water Percentage value with the chart below to determine your current level of body water:


Body Water Level	Male	Female
High	>70%	>65%
Slightly High	65 - 70%	60 - 65%
Normal	53 - 65%	50 - 60%
Slightly Low	48 - 53%	48 - 50%
Low	<48%	<48%

Body Water Level	Advice
High	Consult your physician for advice.
Slightly High	Observe your normal water intake.
Normal	This is the ideal level of body water.
Slightly Low	Drink more water to keep proper hydration.
Low	Consult your physician for advice.

The GR101 provides a Body Water Level Indication on the LCD screen to help you immediately gauge your level of body water without referring to the chart above.



 Weight Conversion Table		
Unit	Name	Conversion
kg	Metric	1 kg = 2.20 lb
	kilogram	1 kg = 0.16 st-lb
lb	Imperial	1 lb = 0.45 kg
	pound	1 lb = 0.07 st-lb
st-lb	British	1 stone = 14.0 lb
	stone pound	1 stone = 6.35 kg

 Troubleshooting Guide		
Symptom	Check	Remedy
The Remote Monitor's display is dim or blank	The batteries are low or exhausted	Replace with new batteries (→ p.3).
	Batteries are inserted incorrectly	Insert the batteries correctly (→ p.3).

Symptom	Check	Remedy
Scale shows OL when weighing	The scale is over-loaded	The maximum weight is 150kg (330 lb / 23st - 8lb). Remove the weight from the scale.
The measurement is inaccurate	The scale is uneven or on carpet	Use the supplied carpet feet or place the scale on a flat, even, and hard surface.
	Socks or shoes are worn	Remove your socks, shoes, and other heavy accessories before using the scale.
	The entered gender, birth date, or height is wrong	Re-enter your user settings with the correct values.
	Measurements vary after a short period	Fluctuations in body fat during the day are normal.
Weight does not display	Retry measuring	Wait until the Reception icon appears






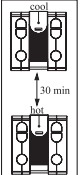
Symptom	Check	Remedy
Err 1 shown on the display	The weight on the scale is unevenly distributed or unstable	Make sure to remain still and place the scale on a flat surface. Use the carpet feet if the ground is carpeted or uneven.
Err 2 shown on the display	You have stepped on the scale too early	For guest user, wait until the LCD is blank. For user with saved settings, wait until the display shows the weight as "0.0" before stepping on.
Err 3 shown on the display	The Scale is not properly calibrated	Lift the Scale up, then place it back on the floor to allow for self-calibration.



Safety and Care

CARING FOR YOUR BODY FAT MONITOR

To ensure you receive the maximum benefit from using this product, please observe the following guidelines.

	Clean with a damp cloth. Do not use abrasive or corrosive cleaning agents.
	Do not attempt to repair the product yourself. Contact the dealer or a qualified repairman if the product requires servicing.
	Do not store the Scale in an upright position.
	Do not place objects on the Scale or Remote Monitor.
	Do not expose the product to excessive force, dust, temperature fluctuations, or humidity.
	Allow the Scale to settle for at least 30 minutes whenever there is a sudden change in ambient environment (e.g., from an outdoor area to an air conditioned room).

SAFETY PRECAUTIONS

Please observe the following safety precautions when setting up and using your Body Fat Monitor.



Do not immerse the product in water or place the scale on a wet surface.



Keep the product away from heat sources such as radiators, stoves, and heaters.



Do not use the Scale on an uneven surface.



Use carpet feet (supplied) if you place the Scale on a carpet.



Warnings

This product has been engineered and manufactured to the highest safety standards. The product is designed to provide you with many years of reliable service, provided that it is properly used and cared for. To ensure your safety and prolong the life of the product, please observe the following precautions.

ABOUT THE DEVICE



WARNING: It is not recommended for persons with implanted medical equipment such as pacemakers or pregnant women to use the GR101.

- The GR101 is intended for home use only, not for hospital diagnosis purposes.
- The BMI, Body Fat Percentage, and Body Water measurements done with the GR101 should only be treated as an approximate indication of your health level. Consult with your physician for a full and thorough evaluation.

- Body Fat Percentage and Body Mass Index measurements are less accurate for professional athletes, bodybuilders, children, teenagers, and persons over the age of 65 due to the difference in their body compositions. However, this device can still help individuals in the groups above to track their body fat trends over time.

GENERAL WARNINGS

- Read and observe all warnings and instructions. Contents of this user manual are subject to change without further notice. Figures and display examples are for reference only, and may slightly differ from the actual product.
- Batteries - Reversing the battery polarity may damage the product. Remove the batteries if the Body Fat Monitor will be in storage for an extended period of time.
- Liquids, moisture, and foreign objects - Never insert foreign objects in or spill liquids on the product, as this can cause electric shock and damage to the unit. Do not immerse this product in water.



Specifications

SCALE UNIT

Dimension	315(W) x 340(D) x 50(H)mm
Weight	1.8 kg (excluding batteries)

Battery	4 x LR6 / AA / UM-3 1.5V
Power Save	Auto-off after 5 - 10 seconds

REMOTE MONITOR

Dimension	186(W) x 120(H) x 33(T)mm
Weight	380g (excluding batteries)
Battery	4xLR6 / AA / UM-3 1.5V batteries

WEIGHT MEASUREMENT

Mechanism	4 load cell strain gauges
Unit	kilogram (kg) / pounds (lb) / stone pounds (st-lb)
Maximum	150kg / 330 lb / 23st-8lb
Graduation	0.1 kg / 0.2 lb

BMI MEASUREMENT

Range	1.8 - 50 kg/m ²
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BODYFAT MEASUREMENT

Mechanism	6 conductive pads
Range	5 - 75%
Resolution	0.1%
Gender	Male / Female
Age	7 to 99 years old

HEIGHT

Unit	centimetres (cm) / feet (') and inches (")
Range	80.0 - 230.0 cm / 2' 7.5" - 7' 6.6"
Resolution	0.1cm or 0.1"
Gender	Male / Female
Age	7 to 99 years old

TEMPERATURE

Operation	5° C - 45° C / 41° F - 113° F at ≤85% relative humidity
Storage	-20° C - 60° C / -4° F - 140° F at ≤85% relative humidity



About Oregon Scientific

Visit our website (www.oregonscientific.com) to learn more about your body fat monitor and other Oregon Scientific™ products such as digital cameras, telephones, alarm clocks, and weather stations. The website also includes contact information for our customer service department, in case you need to reach us.



Help us protect the environment.
Recycle the packaging, batteries, and
product after you no longer need them.